

### Patent Claims

1. A synchronizer ring (10) having a support body (5) made from metal, comprising a conical friction surface (9), and having a friction layer (14) of a material comprising carbon fibers applied to the friction surface (9), characterized in that the material is a compacted fiber reinforced plastic.
2. The synchronizer ring (10) as claimed in claim 1, characterized in that the thickness of the friction layer (14) is from 0.2 mm to 0.6 mm, and in that the carbon fiber (8) reinforced plastic is compacted in such a manner that under a surface pressure of 10 N/mm<sup>2</sup> the friction layer (14) undergoes a change in thickness of less than 0.015 mm, preferably of less than 0.01 mm.
3. The synchronizer ring (10) as claimed in claim 1 or 2, characterized in that the material is produced from a carbon fiber fabric (8) and a resin, in particular a phenolic resin.
4. The synchronizer ring (10) as claimed in claim 3, characterized in that the material has been heat-treated in such a manner as to convert a resin fraction into carbon.
5. The synchronizer ring (10) as claimed in claim 4, characterized in that the carbon is in amorphous and/or graphite form.
6. The synchronizer ring (10) as claimed in claim 4 or 5, characterized in that the converted carbon has been fixed by resin.
7. The synchronizer ring (10) as claimed in one of claims 1 to 6, characterized in that the friction layer (14) has been adhesively bonded to the friction surface (9).
8. The synchronizer ring (10) as claimed in one of claims 1 to 7, characterized in that the support body (5) is made from a brass, from a steel, in particular from a sintered steel, or from a brass-steel composite.